National Aeronautics and Space Administration

THE INNOVATION CATALYST

JUNE 2021

COMPARE AND CONTRAST: SOFTWARE RELEASE VS. NEW TECHNOLOGY REPORTING

Have you written new code recently that you'd like to share? The Strategic Partnerships Office (SPO) is here to help. NASA has a robust catalog of more than 800 software programs available for download. All software programs in the catalog went through NASA's software release process, a system which seeks to protect NASA's intellectual property and to ensure that all software packages meet NASA's policies and guidelines.

Software release begins when you submit a New Technology Report (NTR) for your innovation. While new technology reporting and software release share some similarities, they are also quite different in terms of their objectives and details. Read on to learn more about these two SPO-led processes.

DIFFERENT: ALL NEW TECHNOLOGIES SHOULD BE REPORTED THROUGH NTRS, WHEREAS ONLY SOFTWARE GOES THROUGH THE SOFTWARE RELEASE PROCESS.

Any new technology – hardware or software, groundbreaking revelation or iterative update – developed at NASA should be reported in an NTR. This includes brand new software packages as well as new versions of existing software programs. NASA's Technology Transfer Program reviews NTRs for commercial potential and works with NASA patent attorneys to determine commercial potential. Inventions with high commercial potential are recommended for patent. Once patented, they can be licensed to the private sector.

The software release process, on the other hand, starts with an NTR and then involves additional steps, such as making a request through NASA's Software Release System. Most NASA software programs do not receive patents. Instead, they can be shared with external parties with a Software Usage Agreement (SUA) once cleared through the software release process. If you're working with a company that would like to take NASA software and use it for a commercial application, then reach out to SPO. A copyright license agreement may be necessary when commercial use of NASA software is involved.

SAME: BOTH PROCESSES REQUIRE THAT YOU SUBMIT AN NTR.

You will need to submit an NTR for all new technologies. However, you will need to take an additional step in order to initiate the software release process. Submit your NTR first and then create a Software Release System (SRS) package.

NP-2021-6-673-GSFC

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DIFFERENT: SOFTWARE RELEASE INVOLVES MORE REVIEWS FROM OFFICES ACROSS GODDARD THAN THE NTR PROCESS.

The software release process requires a Software Release Request Authorization (SSRA) that involves the review of several offices across Goddard (for example, IT Security, Export Control, and 508 Compliance). You can start this review process by creating an SRS package and providing all information requested by the reviewers. Because the software release process requires several layers of review, it can take some time to be completed.

DIFFERENT: SOFTWARE RELEASE ALLOWS YOU TO SHARE YOUR CODE WITH PARTIES EXTERNAL TO NASA, WHILE NTRS DON'T AUTOMATICALLY AUTHORIZE YOU TO SHARE YOUR WORK.

Depending on the outcome of the NTR evaluation process, you may or may not be able to share your innovation outside of NASA. New technologies that NASA decides not to patent have their cases closed, and innovators have the option of pursuing a patent on their own. Patented technologies are considered NASA's intellectual property and can only be shared through license agreements.

A successful software release process, however, ends with the generation of an SUA, which allows users to download and run NASA-developed code. In many cases, NASA's software becomes available in the online NASA Software Catalog at no cost to users.

SAME: SPO COORDINATES BOTH PROCESSES FOR GODDARD.

Whether you're looking to share your code or work with an external collaborator to further your technology, you'll want to get in touch with SPO. Please reach out to the contacts on this page if you have any questions about software release or NTRs.

General Questions:

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Software Release Authority:

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MAKE SPACE FOR YOUR MENTAL HEALTH: MEDITATION

No matter how hard you try, it's impossible to completely avoid stress in your daily life. Fortunately, you can develop and practice skills that help you manage stress and lessen its impact on your wellbeing. One great example is mindfulness meditation, which the Mayo Clinic defines as "a type of meditation in which you focus on being intensely aware of what you're sensing and feeling in the moment, without interpretation or judgment."

Several studies support the finding that mindfulness meditation can help with depression, chronic pain, and anxiety. You can find hundreds of free resources online for guided meditation, but key elements involve focusing on the present, paying attention to your surroundings, and breathing deeply and calmly. Try practicing a few minutes a day and test different techniques until you find a system that works for you.

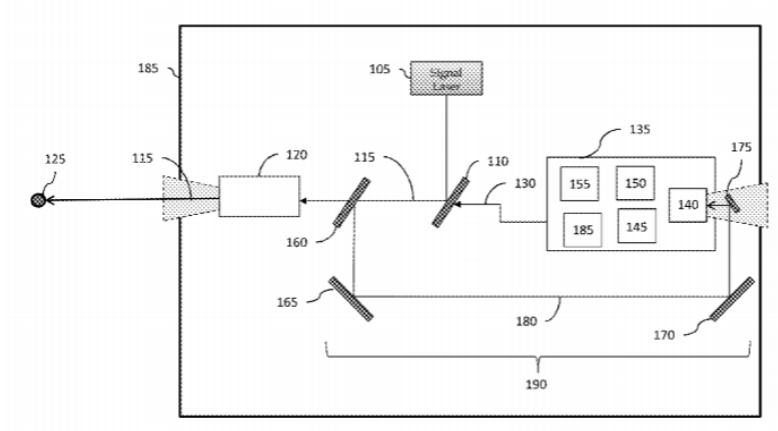
TECH TRANSFER TRIVIA

How much do you know about NASA technology transfer? Find out with our monthly quiz!

Q *Which Goddard-developed software won NASA's Software of the Year Award in 2020?*

- **A.** NOS^3
- **B.** NASTRAN
- **C.** cFS
- **D.** GMSEC

GUESS THE PATENT DRAWING



CLUE ONE: The technology reduces satellite pointing errors and has applications in CubeSat formation flying and laser communications.

CLUE TWO: The patent for this technology was granted in 2019.

CLUE THREE: This technology was invented by Guangning Yang and Jeffrey R. Chen.

Q ***True or False**: Goddard-invented Aeropods won a Federal Labs Consortium Award in 2020.*

- **A.** True
- **B.** False

Q *Which Goddard-developed technology won NASA's Invention of the Year Award in 2019?*

- **A.** Compact Thermal Imager
- **B.** Molecular Adsorber Coating
- **C.** Aeropods
- **D.** Modulated X-Ray Source

+ WANT TO KNOW THE ANSWERS?

Click here for Tech Transfer Trivia and here for the Guess The Patent Drawing.

EVENTS AND HIGHLIGHTS

ROADSHOWS COMING TO A CODE NEAR YOU!

Calling all inventors! The Strategic Partnerships Office works with engineers, scientists, and other innovators who develop new technologies at Goddard that have commercial potential outside of NASA. In the upcoming months, we're visiting codes all across Goddard to learn more about your work and share how you can get more involved in the technology transfer process.

CODE 480 ROADSHOW HOSTED BY JOSH LEVINE: JUNE 29

To attend these roadshows or bring a roadshow to your staff meeting, please email Samantha Kilgore, samantha.kilgore@nasa.gov.

DIVERSITY SPOTLIGHTS

LGBTQ Pride Month

Goddard kicked off Pride Month with a social event on June 3. Check out these remaining events to celebrate the LGBTQ+ community:

- Celebrate Juneteenth, Friday, June 18, 12:30 pm, WebEx, in partnership with the Goddard African American Advisory Committee.
- The Kids Are Alright, Tuesday, June 22, Noon to 1 p.m., Teams: Panel discussion for parents and families of LGBTQ+ youth, in partnership with the Goddard Office of the Chief Financial Officer.

Asian American and Pacific Islander Heritage Month

In observance of Asian American and Pacific Islander Heritage Month, Goddard hosted a number of events, including a virtual conversation with Astronaut Sunita Williams on May 26. Williams is a veteran of two spaceflights – International Space Station Expeditions 14/15 and 32/33. Visit the Goddard Asian Pacific American Advisory Council's website for more information.

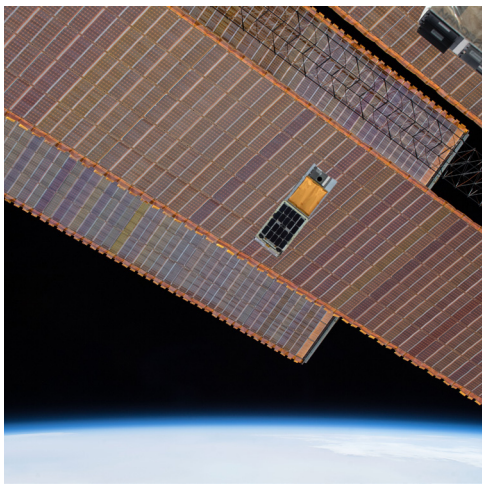


Photo credit: NASA

GODDARD SMALLSAT WEBINAR SERIES

The Small Satellite Office is hosting a series of webinars on SmallSat-related technologies and software packages available for commercial use. The next session will feature nine rounds of "lightning talks" in which speakers will deliver quick updates on the Modular Architecture for a Resilient Extensible SmallSat (MARES).

Currently under development at Goddard, MARES is a capabilities-driven design and architecture with an emphasis on reliability, scalability, and high performance processing. It can apply to SmallSat missions, CubeSat missions, and high-performance instrument processors. The highly integrated architecture reduces mass, volume, and power while still providing the flexibility of a modular system.

You can tune into the event on **June 24 at from 1:30-3 pm EST**: Click here to register!

SBIR/STTR UPDATE

SBIR/STTR kicks off 2022 solicitation development

WHAT IS SBIR/STTR?

The NASA SBIR (Small Business Innovation Research) and STTR (Small Business Technology Transfer) programs empower small businesses (SBCs) to deliver technological innovations to meet your/NASA's needs as described in the annual solicitations. In FY20 alone, nearly $30 million was awarded to SBIR/STTR firms to develop technologies which directly support your/Goddard's research, flight projects, and missions, while also incubating small business success in a broader market.

WHAT IS SOLICITATION DEVELOPMENT?

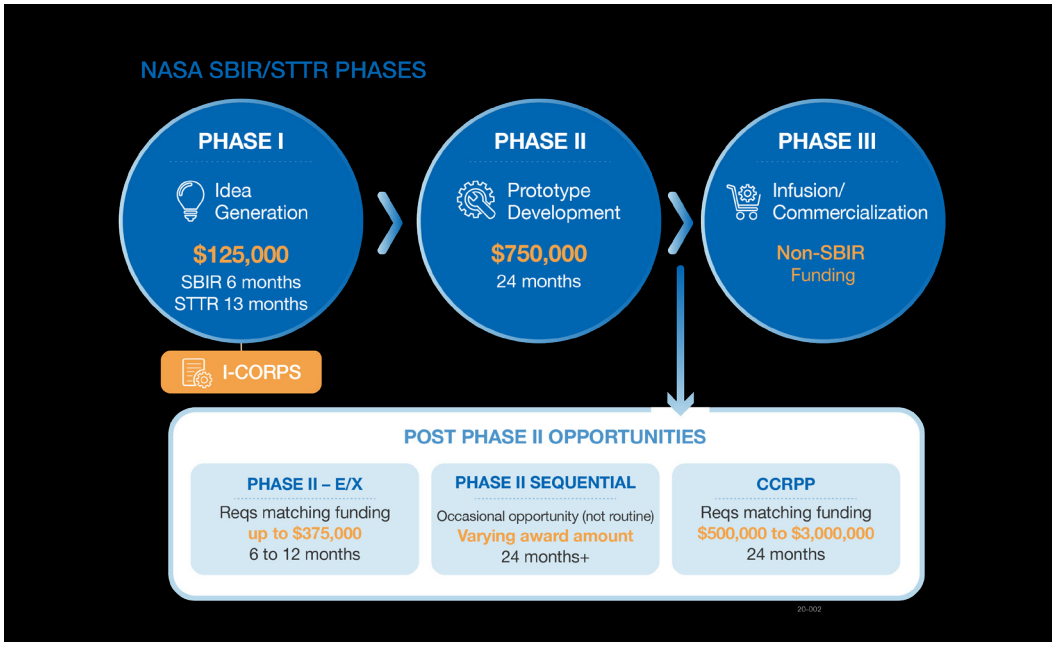
The annual solicitation is comprised of different subtopics which are correlated to NASA's agency-level and center-level needs; during the Solicitation Development (SolDev) Phase, these subtopics are updated and/or new subtopics are nominated to be more aligned with NASA's current technology gaps and industry trends. These updates will enable SBC proposal submissions to be more responsive to the solicitation. The SBIR/STTR program invites you to get involved as a subtopic manager or make recommendations to craft these subtopics to meet your specific technology needs, but we need your help!

GET YOUR PROJECT'S NEEDS ADDRESSED IN NEXT YEAR'S SOLICITATION

1. If your project has technology needs and you think the SBIR/STTR program can help, visit the following link to see last year's solicitation: SBIR/STTR 2021 Annual Solicitation.
2. See if your specific needs relate to any of the existing subtopics.
3. If your need does relate to a specific subtopic, reach out to that subtopic manager and see if it can be addressed in that subtopic.
4. Locate subtopic managers using the link: Subtopic Manager Information.
5. If your need is not addressed in an existing subtopic, consider nominating a new subtopic for the upcoming Annual Solicitation.
6. Reach out to Goddard's SBIR/STTR team any time in the process if you have questions or need guidance.

WHY YOU SHOULD GIVE INPUT TO THE ANNUAL SOLICITATION

By utilizing the SBIR/STTR program, you can use the American scientific/engineering community to plug knowledge gaps and tap into resources. The benefits don't stop after getting your needs addressed in the solicitation. Companies which perform well and help your project along will have the opportunity for continued funding in the form of post awards.



Want the SBIR/STTR team to present at your branch or division?

Use the contact info below! We're always more than happy to present and answer questions about the program.

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